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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/656,230	09/08/2003	David M. Kinder	017198-0117	1075
22428	7590	09/24/2004	EXAMINER	
FOLEY AND LARDNER SUITE 500 3000 K STREET NW WASHINGTON, DC 20007			BUSHEY, CHARLES S	
		ART UNIT	PAPER NUMBER	
		1724		

DATE MAILED: 09/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	10/656,230	KINDER ET AL.
	<b>Examiner</b> Scott Bushey	<b>Art Unit</b> 1724

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on \_\_\_\_\_.
- 2a) This action is **FINAL**.      2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-28 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All
  - b) Some \*
  - c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
 Paper No(s)/Mail Date 9-8-03, 12-15-03.
- 4) Interview Summary (PTO-413)  
 Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 2, 5-10, 12-14, and 16-28 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Meier (Fig. 3; col. 1, lines 5-7; col. 2, lines 7-9, 17-18, 55-56).

Applicant should note that with respect to the claimed range of ratio of void area to plate surface area, the reference clearly teaches 0.20:1 (20%), and thus the reference anticipates applicant's claimed range, as set forth by instant claims 2, 14, and 22. With respect to the claimed ridge angle relative to the horizontal, the reference clearly teaches an angle range of 15 to 60 degrees relative to the vertical column axis, or 30 to 75 degrees relative to horizontal, and thus since the reference range overlaps a portion of applicant's claimed range, as set forth by instant claims 6, 17, and 26, such is anticipated thereby. Furthermore, with respect to the recitation by instant claims 7, 18, and 27, of "about 26.6 degrees, with respect to the horizontal", such recitation, through the use of the modifier "about" is considered to be sufficiently broad to have been anticipated by the reference range end point of 30 degrees relative to the horizontal.

With respect to the pack being adapted to inhibit accumulation of bacteria on the sheets, the reference teaches vertical alignment of the sheets, which will assist in drainage of the sheets,

which will move any bacteria through the packing without the tendency to collect and accumulate on the sheets.

3. Claims 1, 4-6, 8, 9, 12, 13, 21, and 24-26 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Buchholz et al (Fig. 7; col. 3, lines 9 and 12; col. 4, lines 58-59; col. 5, lines 7-27).

Applicant should note that the apertures arranged on the ridge peaks and in vertical alignment with one another on consecutive ridges on a sheet of the pack will allow for water droplets to drop vertically through at least two consecutive ridges in the sheet.

With respect to the pack being adapted to inhibit accumulation of bacteria on the sheets, the reference teaches vertical alignment of the sheets, which will assist in drainage of the sheets, which will move any bacteria through the packing without the tendency to collect and accumulate on the sheets.

4. Claims 1-3, 5, 8-10, 12-16, 21-25, and 28 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Kessler (Fig. 1; col. 1, lines 11-12; col. 3, lines 24-32).

Applicant should note that with respect to the claimed range of ratio of void area to plate surface area, the reference clearly teaches 10 to 50%, and thus the reference anticipates applicant's claimed range, as set forth by instant claims 2, 14, and 22.

With respect to the pack being adapted to inhibit accumulation of bacteria on the sheets, the reference teaches vertical alignment of the sheets, which will assist in drainage of the sheets, which will move any bacteria through the packing without the tendency to collect and accumulate on the sheets.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Meier taken together with the technical paper from the Cooling Tower Institute 1993 Annual Meeting, as submitted by applicant.

Meier as applied above substantially discloses applicant's invention as recited by instant claim 11, except for the packing being formed specifically from PVC. Meier does disclose that it is known to construct the packing from a variety of materials, including plastics.

The technical paper from the Cooling Tower Institute 1993 Annual Meeting, as submitted by applicant makes it clear that it was well known within the art at the time of the invention to construct film fill packs from PVC material. It would have been obvious to an artisan at the time of the invention, to utilize PVC as the chosen plastic material of the Meier pack, in view of the

secondary reference, since such is well known to provide the advantages of weight reduction and corrosion resistance of the pack over metallic packing materials.

***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott Bushey whose telephone number is (571) 272-1153. The examiner can normally be reached on Monday-Thursday 6:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on (571) 272-1166. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Scott Bushey  
Primary Examiner  
Art Unit 1724

csb  
9-21-04



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